

Lithophane lepida lepida (Pine Pinion)

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: *Insecta* (Insects)

Order: *Lepidoptera* (Butterflies, Skippers, And Moths)

Family: *Noctuidae* (Noctuid Moths)

General comments:

3 widespread historic EOs and 1 modern (1980s) EO; apparent declines - is rarely collected range wide; potentially limited Northeastern range – historic in all but NH; requires extensive hard pine stands; Schweitzer and others did not find in southern pitch pine/scrub oak barrens, but northern hard pine stands are vastly under-surveyed; associated with red pine in NB - RW says probably undercollected; Grank raised from G4T3T4Q to G4T1T3

Species Conservation Range Maps for Pine Pinion:

Town Map: [Lithophane lepida lepida_Towns.pdf](#)

Subwatershed Map: [Lithophane lepida lepida_HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation: NA

State Special Concern or NMFS Species of Concern:

Lithophane lepida lepida is listed as a species of Special Concern in Maine.

Recent Significant Declines: NA

Regional Endemic:

Lithophane lepida lepida's global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).

Notes: 3 widespread historic EOs and 1 modern (1980s) EO; apparent declines - is rarely collected range wide; potentially limited Northeastern range – historic in all but NH; requires extensive hard pine stands; Schweitzer and others did not find in southern PPS

High Regional Conservation Priority:

NatureServe:

Global Rank: T2

High Climate Change Vulnerability: NA

Understudied rare taxa:

Recently documented or poorly surveyed rare species for which risk of extirpation is potentially high (e.g. few known occurrences) but insufficient data exist to conclusively assess distribution and status. *criteria only qualifies for Priority 3 level SGCN*

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Historical: NA

Culturally Significant: NA

Habitats Assigned to Pine Pinion:

Formation Name	Boreal Upland Forest
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Macrogroup Name	Boreal Upland Forest
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Habitat System Name:	Boreal Jack Pine-Black Spruce Forest	Notes: potential; requires extensive stands of hard pines
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Class: *Insecta* (Insects)Order: *Lepidoptera* (Butterflies, Skippers, And Moths)Family: *Noctuidae* (Noctuid Moths)**Formation Name** Northeastern Upland Forest**Macrogroup Name** Central Oak-Pine**Habitat System Name:** Central Appalachian Dry Oak-Pine Forest **Notes:** *potential; requires extensive stands of hard pines***Habitat System Name:** Northeastern Interior Pine Barrens **Notes:** *potential; requires extensive stands of hard pines***Stressors Assigned to Pine Pinion:**

Stressor Priority Level based on Severity and Actionability		Moderate Severity	High Severity
	Highly Actionable	Medium-High	High
	Moderately Actionable	Medium	Medium-High
	Actionable with Difficulty	Low	Low

IUCN Level 1 Threat Natural Systems Modifications**IUCN Level 2 Threat:** Fire and Fire Suppression**Severity:** Severe**Actionability:** Moderately actionable**Notes:** Pine barren habitat is fire dependent - fire suppression can alter successional stage and habitat availability over time; fire can cause direct mortality**IUCN Level 1 Threat** Other Options**IUCN Level 2 Threat:** Lack of knowledge**Severity:** Moderate Severity**Actionability:** Highly actionable**Notes:** No recent EOs in ME; lack of comprehensive survey effort, including outside PPSO habitat, to identify additional occurrences and determine species status**IUCN Level 1 Threat** Pollution**IUCN Level 2 Threat:** Agricultural and Forestry Effluents**Severity:** Moderate Severity**Actionability:** Highly actionable**Notes:** Nontarget species impacts from aerial pesticides; especially control efforts for gypsy moth in southern ME and spruce budworm in northern/eastern ME**IUCN Level 1 Threat** Other Options**IUCN Level 2 Threat:** Other Threat**Severity:** Severe**Actionability:** Actionable with difficulty**Notes:** Past rangewide declines from unknown stressor**Species Level Conservation Actions Assigned to Pine Pinion:**

None. *Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.*

Conservation Actions Associated with the Dry Barrens Lepidoptera Guild:

Conservation Action **Category:** Species Management **Biological Priority:** critical **Type:** new
 Prepare occurrence maps and pesticide spray consultation guidelines for rare Lepidoptera and distribute to strategic partners including Maine Bureau of Pesticides Control.

Stressor(s) Addressed By This Conservation Action

Agricultural and Forestry Effluents

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Conservation Action

Category: Habitat Management

Biological Priority: critical

Type: new

Conduct a statewide review of potential high quality barrens habitat that is threatened by succession and identify strategic habitat restoration actions for implementation by key conservation partners.

Stressor(s) Addressed By This Conservation Action

Fire and Fire Suppression

Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.